

Amendments to the Specification:

Please replace paragraph [0009] with the following rewritten paragraph:

[0009] A preferred embodiment of a modular electrical connector comprises a plug comprising a printed circuit board, a contact ~~finger~~ positioned on a portion of the printed circuit board, and a housing for supporting and constraining the printed circuit board so that the portion of the printed circuit board extends from the housing. The printed circuit board has a flexible portion that permits the portion of the printed circuit board to translate in relation to the housing.

Please replace paragraph [0010] with the following rewritten paragraph:

[0010] The modular electrical connector also comprises a receptacle for mating with the plug and comprising a first contact for electrically contacting the contact ~~finger~~ of the plug when the plug and the receptacle are mated, and a housing having a slot formed therein for receiving the portion of the printed circuit board when the plug and the receptacle are mated.

Please replace paragraph [0011] with the following rewritten paragraph:

[0011] Another preferred embodiment of a modular electrical connector comprises a plug comprising a first housing, a first printed circuit board at least partially mounted in the first housing so that a portion of the first printed circuit board extends from the first housing in a first direction and can flex in relation to the first housing in a second direction substantially perpendicular to the first direction, and a contact ~~finger~~ mounted on the portion of the first printed circuit board.

Please replace paragraph [0012] with the following rewritten paragraph:

[0012] The modular electrical connector further comprises a receptacle for mating with the plug and comprising a second printed circuit board, a contact mounted on the second printed circuit board for electrically contacting the contact ~~finger~~ of the plug when the plug and the receptacle are mated, and a second housing for substantially enclosing the contact of

the receptacle. The second housing has a slot formed therein for receiving the portion of the printed circuit board and extending in a third direction substantially perpendicular to the first and second directions when the plug and the receptacle are mated.

Please replace paragraph [0062] with the following rewritten paragraph:

[0062] A plurality of contacts ~~fingers~~ 32 are mounted on each PCB 20 (see Figures 5, 6A, and 6B). The contacts ~~fingers~~ 32 are mounted on the first side surface 20e of each PCB 20, proximate the forward edge 20d. The contacts ~~fingers~~ 32 each comprise a substantially U-shaped staple 34 (only one of the staples 34 is depicted in Figure 6, for clarity). Each staple 34 includes a first and a second leg 34a, 34b, and an elongated portion 34c that adjoins the first and second legs 34a, 34b. The first and second legs 34a, 34b are electrically and mechanically coupled to a respective signal trace 28 by, for example, soldering. The elongated portion 34c of each staple 34 extends in a direction substantially perpendicular to the forward edge 20 when the staple 34 is mounted on the corresponding PCB 20.

Please replace paragraph [0063] with the following rewritten paragraph:

[0063] The ground plane 30 on each PCB 20 terminates in a contact region 44 formed thereon (see Figure 6C). The contact region 44 is located on the second side surface 20f, proximate the forward edge 20d. The contact region 44 is preferably formed by gold plating on the copper ground plane. A ground plate 44a can be used in lieu of the solid-plated contact region 44 in alternative embodiments (see Figure 12). The ground plate 44a can be raised from the second side surface 20f to provide the contacts ~~fingers~~ 32 with the proper impedance, as shown in Figure 12. (It should be noted that the aspect ratio of the PCB 20 is not drawn to scale in Figure 13. In particular, the thickness ("y"-axis dimension) of the PCB 20 is exaggerated in relation to the length ("x"-axis dimension) Figure 12.)

Please replace paragraph [0092] with the following rewritten paragraph:

[0092] The engagement of the keys 78 and the edges of the slots 23 guides the plug 12 in relation to the receptacle 14. Continued movement of the plug 12 toward the receptacle 14 eventually causes the ground and signal contacts 66, 72 of the receptacle 14 to come into

contact with the forward edge 20d of a corresponding one of the PCBs 20. Further movement of the plug 12 in the direction of insertion causes each signal contact 66 to contact one of the contacts ~~fingers~~ 32 on the PCBs 20. More specifically, the end portion 66c of each signal contact 66 slidably engages the elongated portion 34c of a corresponding one of the staples 34. Furthermore, each ground contact 72 contacts the contact region 44 on a corresponding PCB 20. The noted contact between the contacts ~~fingers~~ 32 and the signal contacts 66, and between the ground contacts 72 and the contact regions 44 establishes electrical contact between the daughter cards 16, 18.

Please replace paragraph [0096] with the following rewritten paragraph:

[0096] Float between the plug 12 and the receptacle 14 in the lateral (“y”) direction is achieved by virtue of the flexibility of the PCBs 20. More particularly, the flexible region 20i of each of the PCBs 20 can deflect in response to lateral misalignment between the plug 12 and the receptacle 14. In other words, the flexibility of the flexible region 20i permits the freestanding portion of each PCB 20, i.e., the portion of the PCB 20 positioned within the corresponding slot 76 in the front housing 54, to deflect laterally when urged in that direction by the front housing 54. This feature permits the contacts ~~fingers 36~~ 32 and the contact regions 44 on the PCBs 20 to establish contact, and to remain in contact with the corresponding signal contacts 66 and ground contacts 72 on the PCBs 50 when the plug 12 and the receptacle 14 are misaligned.

Please replace paragraph [0099] with the following rewritten paragraph:

[0099] Moreover, each signal contact 66 of the receptacle 14 has a relatively wide end portion 66e (with respect to the vertical, or “y” direction), as previously noted. This feature permits the signal contact 66 to move vertically in relation to the corresponding contact ~~finger~~ 32 of the plug 12, within a predetermined range, without losing contact with the contact ~~finger~~ 32. In effect, the width of the end portion 66e provides the signal contact 66 with wipe in the vertical direction, thereby allowing the end portion 66e to establish contact, or to remain in contact with the contact ~~finger~~ 32 when the plug 12 and the receptacle 14 are misaligned. Moreover, the use of the relatively wide end portion 66e, in conjunction with the relatively narrow elongated portion 66d, gives the signal contact 66 sufficient width

DOCKET NO.: FCI-2656/C3138
Application No.: 10/626,960
Office Action Dated: February 1, 2005

PATENT

to remain in contact with the contact ~~finger~~ 32 while keeping the impedance of the signal contact 66 from becoming excessive.

Please replace paragraph [0100] with the following rewritten paragraph:

[0100] Hence, Applicants have provided the plug 12 and the receptacle 14 with tolerance to a predetermined range of vertical misalignment by providing clearance between the housing 22 and the forward housing 54, and by configuring the signal contacts 66 in a manner that causes the signal contacts 66 to remain in contact with the corresponding contacts ~~fingers~~ 32 when such misalignment is present.